NIOSH Public Meeting: Total Inward Leakage

June 26th, 2007
Coraopolis, PA

Andrew Pope, Ph.D.
Director
Board on Health Sciences Policy

What I will cover today:

- What is the IOM
- IOM Report: Assessment of the NIOSH Head-and-Face Anthropometric Survey of U.S. Respirator Users
History of Origins

- 1863 – NAS Charter
- 1916 – NRC Established
- 1964 – NAE Established
- 1970 – IOM Established
CONGRESSIONAL CHARTER FOR THE NATIONAL ACADEMY OF SCIENCES

... the Academy shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art ...

Approved, March 3, 1863.

ABRAHAM LINCOLN, President.
Study Initiation

- Congressional Mandate
- Agency Request
- Self-Initiated

Unique Strengths

- Reputation for independence and objectivity
- Stature of Academies’ membership
- Ability to get the very best to serve
- *Pro bono* nature of committee service
- Special relationship to government
- Quality assurance and control procedures
Timeline of the Committee Process

<table>
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<tr>
<th>Committee Assembly (~ 3 months)</th>
<th>Committee Meetings &amp; Report Writing (~ 12 months)</th>
<th>Report Review (~ 3 months)</th>
<th>Printing &amp; Publication (~ 3 months)</th>
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INSTITUTE OF MEDICINE

Dissemination

- Hiring Staff
- Report Review

- Project Start
- 1st Committee Meeting
- 2nd Committee Meeting
- 3rd Committee Meeting
- 4th Committee Meeting
- Enter Report Review
- PrePub Delivery
- Books Printed

Project Initiation
Research, Meet, Deliberate
Report Production

INSTITUTE OF MEDICINE
IOM Activities for NIOSH

- **Committee on PPE for the Workforce (COPPE)**
  - Three open meetings in FY06
  - Meeting 1 FY07: Oct 23-24, 2006
  - Workshop: Feb 22, 2007 – **PPE during an Influenza Pandemic: Research, Standards, Certification and Testing Directions**

- **Review of Anthropometrics Survey and Respirator Panel Modifications**
  - Three open meetings in FY06
  - Final report released Jan 2007

- **Review of BLS Survey of Respirator Use**
  - Three open meetings in FY06
  - Final report released Feb 2007

- **National Academies Evaluation of Personal Protective Technology (PPT) Cross Sector**
  - Evidence package to National Academies Aug 2007
  - National Academies evaluation Sept 2007
Assessment of the NIOSH Head-and-Face Anthropometric Survey of U.S. Respirator Users

Abbreviated Statement of Task

- Examine the content and the form of the study, the sample and its sample methodology, and the adequacy of the resultant data.
- Determine if the revised panel is representative of the U.S. workforce and the adequacy of the anthropometric features and parameters considered in the revised panel.
- Identify additional analyses that NIOSH might undertake.
- Examine how the data obtained from the study was analyzed, conclusions reached from the data, and recommend additional information that NIOSH might derive from current and possible future efforts.
Committee Roster

JOHN C. BAILAR III, (Chair), University of Chicago, Illinois
LISA M. BROSSEAU, University of Minnesota, Minneapolis
HOWARD J. COHEN, University of New Haven, West Haven, Connecticut
ALAN L. HACK, Los Alamos, New Mexico
SUBHASH R. LELE, University of Alberta, Edmonton, Canada
YOUCHEUNG LIU, Yale University School of Medicine, New Haven, Connecticut
JOAN T. RICHTSMEIER, Pennsylvania State University, University Park
Knut Ringen, Seattle, Washington
JAVIER ROJO, Rice University, Houston, Texas
ALBERT A. SCIARRETTA, CNS Technologies, Inc., Springfield, Virginia

Project Timeline

- Meeting #1: November 2005
- Project Startup: September 2005
- Meeting #2: December 2005
- Meeting #3: July 2006
- Meeting #4: August 2006
- Report Release: January 24, 2007
Major Findings: Overarching Themes

1. The results of the NIOSH-sponsored Anthrotech study represent a clear improvement over the anthropometric data and corresponding LANL fit-test face panels that have been used since the 1970s;

2. The NIOSH-sponsored Anthrotech study has a number of weaknesses that limit its effectiveness and reliability.

3. There are certain steps that should be taken to address the weaknesses, in order to move toward more effective testing and certification of respirators in the future.

For More Information

Report Available at: www.nap.edu

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